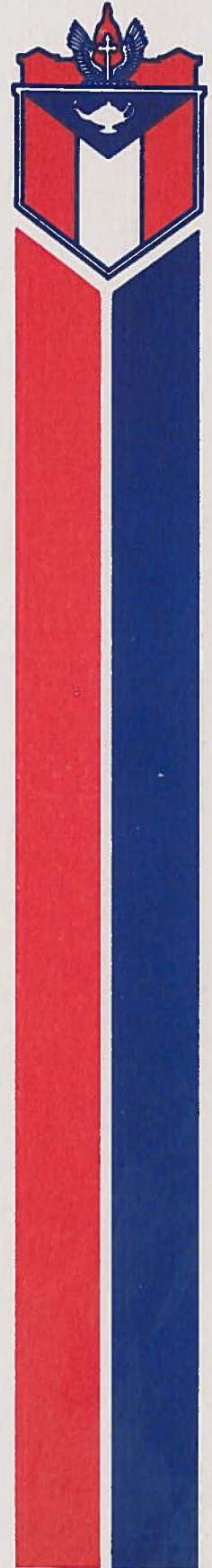


**City of Austin**



**Water Quality Monitoring Program**

**Summary**

**Revised May, 1994**

# **Water Quality Monitoring Program**

**Summary**

**Revised May, 1994**

**Installation Plan  
for  
Stormwater Monitoring Sites/Stations  
Updated Plan**

# City of Austin

5/11/94

## Stormwater Monitoring Sites/Stations

No.*	Site	Number of Stations	Date of Installation	Purpose
<b>Installed</b>				
1	Lavaca Urban (Commercial)	1	Installed	NPDES Permit Requirements
2	Burton Road (Multi-family)	1	Installed	NPDES Permit Requirements
3	Lost Creek (SF Residential)	1	Installed	NPDES / Testing Ordinances
4	Metric Blvd. (Industrial)	1	Installed	NPDES
5	Waller Ck. @ 38th st. (Mixed Use)	1	Installed	NPDES / Waller Creek Grant
6	Waller Ck. @ 23rd st. (Mixed Use)	1	Installed	Waller Creek Grant
7	5th st. (Inlet Filters)	1	Installed	BMP Testing / Retrofit Plan
10	Barton Ck. (Office Complex)	1	Installed	Testing Ordinance
12	Barton Ck. (Undeveloped)	1	Installed	Testing Ordinance
14	Bear Ck. (Trib. of Onion Ck., Undev.)	1	Installed	Testing Ordinance
8	Barton Ck. (SF Residential)	2	Installed	Testing Ordinance
9	Barton Ridge Plaza (Sed./Filtration)	4	Installed	Testing Ordinance / BMP Testing

**TOTAL**

**16**

### Immediate Concern

24	Barton Ck. (Undeveloped, Recharge)	1	Unknown	Testing Ordinance
11	Barton Ck. (Golf Course)	1	Unknown	Testing Ordinance
17	Jollyville Rd. (Filtration Pond)	3	May-94	To be modified / BMP Testing
23	Mopac @ W. 290 (Hwy. BMP)	6	May-94	Grant / BMP Testing
18	Convention Center (pre-treatment basin)	2	May-94	Waller Creek Grant
15	Waller Ck. (Oil/Grit Separator 1)	1	May-94	Waller Creek Grant
16	Waller Ck. (Oil/Grit Separator 2)	1	May-94	Waller Creek Grant
27	East Bouldin Ck. (Filtration Pond-sites #1, #2)	2	Jun-94/Jul-94	Town Lake Study or BMP Testing
27	East Bouldin Ck. (site #8)	1	Jul-94	Town Lake Study or BMP Testing
36	Austin Recreation Center (Oil/Grit Separator)	2	Jul-94	Contaminant Sediment Grant

### East Austin

28	Municipal Airport @ Manor Rd. (Airport)	1	May-94	East Austin Initiative
29	Hargrave near 12th st. (Truck Facility)	1	Sep-94	(or alternative site)/ East Austin Initiative
30	Springdale Rd. & Airport Blvd. (Tank Farm)	1	Sep-94	(or alternative site)/ East Austin Initiative
31	Little Walnut Creek (SF Residential)	1	Sep-94	(or alternative site)/ East Austin Initiative

**TOTAL**

**24**

### Future Needs

35	38th st. @ Guadalupe (Wet Pond)	3	Apr-95	Contaminant Sediment Grant/ BMP Testing
37	Alpine Pond Outflow (Extended Detention, site #7)	1	Apr-95	Town Lake Study / Urban Retrofit/BMP Testing
33	Alpine Pond Inflow (Mixed Use, site #4)	1	Apr-95	Town Lake Study / Urban Retrofit/BMP Testing
27	East Bouldin Ck. (Filtration Pond-site #3)	1	Oct-94	Town Lake Study / Urban Retrofit/BMP Testing
34	Far West Blvd. (Detention/Wet Land)	4	Nov-94	Urban Retrofit / BMP Testing

**TOTAL**

**10**

### Postponed

20	Walnut Ck. (Undeveloped)	1	Postponed	Multipurpose
19	St. Elmo Rd. (Wet Pond)	3	Postponed	BMP Testing
21	Carson Ck. (Industrial)	1	Postponed	Multipurpose
22	Williamson Ck. (Golf Course)	1	Postponed	McKinney Falls Study
25	Little Bear Ck. (Undeveloped)	1	Postponed	Testing Ordinance
26	Garden St. @ Comal (Mixed Use)	1	Postponed	East Austin Initiative
13	Barton Ck. (Undev. Recharge, Cont zone)	1	Postponed	Testing Ordinance
32	River Place (SF Res. & Golf Course)	2	Postponed	River Place Contract/ Testing Ord

**TOTAL**

**11**

\*Numbers refer to location map



# City of Austin

Environmental And Conservation Services Department  
Environmental Resources Management Division

## Water Quality Monitoring Program

Summary

---

### August 1993

(An update of the May 19, 1993 Presentation to Council Environmental Subcommittee)

# **Water Quality Monitoring Program**

## **Table of Contents**

### **Program Outline**

### **Program Description**

Stormwater Monitoring Program (SWMP)  
SWMP Monitoring Location Map

Cooperative USGS / COA Monitoring Program (USGSP)  
USGSP Monitoring Location Map

Joint Water Quality Monitoring Program (JWQMP)

NPDES Permit Monitoring

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### **Budget Outline**

# Program Outline

# Water Quality Monitoring Program Goals and Objectives

**Goals:** Generate quality data for effective water quality planning and management in order to maintain and improve the quality of water resources in the metropolitan Austin area.

## Objectives:

1. Review and Improve Watershed Rules - - Document water quality and quantity of stormwater runoff from various developed and undeveloped lands.
2. Develop and Implement Retrofit Plans - - Document the effectiveness of various structural and non-structural stormwater quality control measures.
3. Report Water Quality Status - - Quantify existing water quality conditions and their time trends of Austin area creeks, lakes and Edward's Aquifer.
4. Eliminate Duplication of Efforts - - Coordinate and improve the efforts of water quality monitoring by various public organizations.
5. Satisfy Permit Requirements - - Comply with the stormwater discharge permit requirements of the U.S. EPA's National Pollutant Discharge Elimination System (NPDES) regulation.

# Water Quality Monitoring Program Products

Programs	Products
<b>Stormwater Monitoring Program (SWMP)</b>	<ol style="list-style-type: none"> <li>1. Data of stormwater runoff quality and quantity</li> <li>2. Model for implementation and operation of SWMP monitoring stations</li> <li>3. Water Quality Monitoring Training Manual</li> </ol>
<b>Cooperative COA/USGS Program (USGSP)</b>	<ol style="list-style-type: none"> <li>1. Water quality and quantity data for Austin creeks, lakes, and groundwater</li> <li>2. Model for implementation and operation of USGSP monitoring stations</li> </ol>
<b>Joint Water Quality Monitoring Program (JWQMP)</b>	<ol style="list-style-type: none"> <li>1. Cooperative work plan</li> <li>2. JWQMP database</li> <li>3. Quality control/lab analysis comparison study</li> </ol>
<b>NPDES Permit Monitoring Program</b>	<ol style="list-style-type: none"> <li>1. Documentation of stormwater discharge pollutant loads from entire COA area</li> <li>2. Coordination of NPDES stormwater management projects</li> </ol>
<b>Technical Data Services</b>	<p>Services in response to customer requests of :</p> <ol style="list-style-type: none"> <li>1. Detailed COA water quality data</li> <li>2. Data in JWQMP database</li> </ol>

# **Program Description**

## **Stormwater Monitoring Program (SWMP)**

# City of Austin Stormwater Monitoring Program

## **Historical Monitoring Research -**

Length of Period: 1984 - 1989

Total Number of Stations: 17

## **Current Program -**

Length of Period: 1992 - 1997

Total Number of Stations:

- On October 1992            5 Stations
- By November 1993        20 Stations
- By October 1994           40 Stations
- By September 1995       60 Stations

# Status of Current Stormwater Monitoring Program

Objectives of Monitoring	Number of Stations	Work Schedule
Comply with EPA's Stormwater Discharge Permit Requirement	5	Jul. 1992 - Sep. 1997
Provide data for review and study of watershed regulations and rules	21	Jun. 1993 - Sep. 1997
Develop and implement basin water quality retrofit plans	24	Jun. 1993 - Dec. 1997
Comply with requirements of grant study	10	Jun. 1993 - Apr. 1997
	60	Jul 1992 - Dec. 1997 (5.5 years)



# Objectives, Locations and Characteristics Of Monitoring Stations

Number of Stations	Objectives of SWMP Monitoring	Site Locations	Land use/ BMP
5	Comply with EPA's Stormwater Discharge Permit Requirement	Lavaca st. Burton Rd. Metric Blvd. Waller Creek @ 38th st. Lost Creek Subdivision	Commercial Multi-family Industrial Mixed-Use Single family Residential
21	Provide data for review and study of watershed regulations and rules	Barton Creek (3) Bear Ck./Trib. of Onion Ck. (1) Little Bear Ck. (1) Walnut Creek (1) Barton Creek (2) River Place (1) E. Bouldin Creek (1) Little Walnut Creek (1) Barton Creek (1) Barton Creek (1) Williamson Creek (1) River Place (1) Garden st. @ Comal (1) E. Bouldin Creek (1) Carson Creek (1) Municipal Airport (1) Hargrave near 12th st. (1) Springdale @ Airport Blvd. (1)	Undeveloped Undeveloped Undeveloped Single family Residential Single family Residential Single family Residential Single family Residential Office Complex Golf Course Golf Course Golf Course Mixed-Use Mixed-Use Industrial Airport/ Industrial Truck Storage Facility Tank Farm
24	Develop and implement water quality retrofit plans	Barton Ridge Plaza (4) Jollyville Road (3) Gillis Park (1) Convention Center (2) St. Elmo Road (3) Central Park @ 38th st. (3) Alpine Road (2) Far West Pond (4) S. Congress @ Oltorf (2)	Sedimentation/Filtration Filtration Filtration Wet Pond Wet Pond Wet Pond Extended Detention Extended Detention/Wet Land Oil/Grit Separator
10	Comply with grant study requirements	Waller Creek (2) Waller Creek (2) S. Mopac @ Hwy 290 (6)	Mixed-Use Small BMP's Filtration/Retention

Total Stations: 60

# Monitoring Station Types by Site Characteristics

Land Use/BMP	Watershed/Area	Recharge/Non-recharge	Number of Stations
Undeveloped	Southwestern Non-urban	Recharge (R)	2
	Northeastern Non-urban	Non-Recharge (NR)	1
	Southwestern Non-urban	NR	3
Single-Family Residential	Southwestern Non-urban	NR	1
	Northwestern Non-urban	NR	1
	Southwestern Non-urban	R	2
	Central Urban	NR	1
	Eastern Urban	NR	1
Multi-Family Residential	Central Urban	NR	1
Office Complex	Southwestern Non-urban	R	1
Commercial	Central Urban	NR	1
Industrial	Northeastern Non-urban	NR	1
	Eastern Urban	NR	3
Mixed Use	Central Urban	NR	6
Golf Course	Northwestern Non-urban	NR	1
	Southwestern Non-urban	NR	1
	Southeastern Non-urban	NR	1
Filtration Pond	Northwestern Non-urban	NR	3
	Central Urban	NR	1
Sedimentation/Filtration	Southwestern Non-urban	NR	4
Roadway/Filtration/Retention	Southwestern Non-urban	NR	6
Wet Ponds	Central Urban	NR	5
	Southeastern Non-urban	NR	3
Extended Detention	Central Urban	NR	2
Extended Detention/Wet Land	Central Urban	NR	4
Small BMP's	Central Urban	NR	4
Total			60

## Monitoring Station Types by Geographic Areas

Geographic Areas	Number of Stations
Eastern Urban Zone	4
Central Urban Zone	25
Northwestern Non-Urban Zone	5
Southwestern Non-Urban Zone	19
Northeastern Non-Urban Zone	2
Southeastern Non-Urban Zone	5
Total	60

# Map Key

## City of Austin

### Stormwater Monitoring Sites

Fiscal Year	Status	Site	Number of Stations	Date of Installation
91-93	Installed or being installed	1 Lavaca Urban (Commercial)	1	Sep-92
		2 Burton Road (Multi-family)	1	Sep-92
		3 Lost Creek (SF Residential)	1	Sep-92
		4 Metric Blvd. (Industrail)	1	Sep-92
		5 Waller Ck. @ 38th st. (Mixed Use)	1	Sep-92
		6 Waller Ck. @ 23rd st. (Mixed Use)	1	Jun-93
		7 5th st. (Inlet Filters)	1	Jun-93
		8 Barton Ck. (SF Residential)	2	Jun-93
		9 Barton Ridge Plaza (Sed./Filtration)	4	Jun-93
		10 Barton Ck. (Office Complex)	1	Jun-93
		11 Barton Ck. (Golf Course)	1	Sep-93
		12 Barton Ck. (Undeveloped)	1	Sep-93
		13 Barton Ck. (Undeveloped)	1	Sep-93
		14 Bear Ck. (Trib. of Onion Ck., Undev.)	1	Sep-93
		15 Waller Ck. (Oil/Grit Separator 1)	1	Sep-93
		16 Waller Ck. (Oil/Grit Separator 2)	1	Sep-93
		17 Jollyville Rd. (Filtration Pond)	3	Sep-93
		18 Convention Center (Wet Pond)	2	Sep-93
		19 St. Elmo Rd. (Wet Pond)	3	Sep-93
		20 Walnut Ck. (Undeveloped)	1	Sep-93
		21 Carson Ck. (Industrial)	1	Sep-93
93-94	To be installed	22 Williamson Ck. (Golf Course)	1	Apr-94
		23 Mopac @ W. 290 (Hwy BMP)	6	Apr-94
		24 Barton Ck. (Undeveloped)	1	Apr-94
		25 Little Bear Ck. (Undeveloped)	1	Apr-94
		26 Garden St. @ Comal (Mixed Use)	1	Apr-94
		27 East Bouldin Ck. (Filtration Pond)	3	May-94
		28 Municipal Airport @ Manor Rd. (Airport)	1	May-94
		29 Hargrave near 12th st. (Truck Facility)	1	Sep-94
		30 Springdale Rd. & Airport Blvd. (Tank Farm)	1	Sep-94
		31 Little Walnut Creek (SF Residential)	1	Sep-94
		32 River Place (SF Res. & Golf Course)	2	Sep-94
		33 Alpine Pond Inflow (Mixed Use)	1	Mar-95
94-95 Future	To be installed	34 Far West Blvd. (Detention/Wet Land)	4	Mar-95
		35 38th st. @ Guadalupe (Wet Pond)	3	Mar-95
		36 S. Congress @ Oltorf (Oil/Grit Separator)	2	Mar-95
		37 Alpine Pond Outflow (Extended Detention)	1	Mar-95

TOTAL

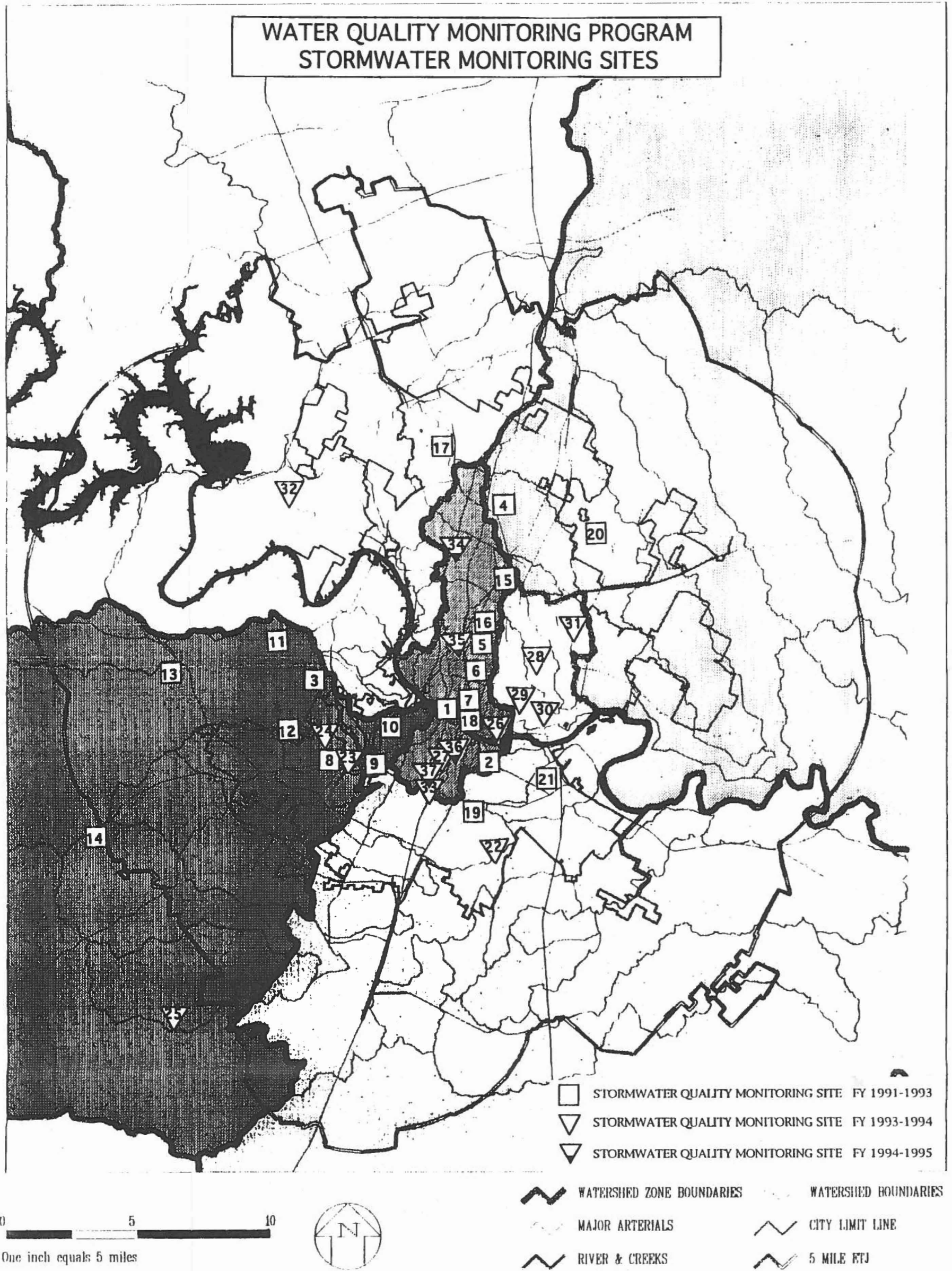
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# City of Austin

## Stormwater Monitoring Sites/Stations

Region	Site #	Site	Number of Stations	Date of Installation
<b>Eastern Urban Zone</b>	28	Municipal Airport @ Manor Rd. (Airport)	1	May-94
	29	Hargrave near 12th st. (Truck Facility)	1	Sep-94
	30	Springdale Rd. & Airport Blvd. (Tank Farm)	1	Sep-94
	31	Little Walnut Creek (SF Residential)	1	Sep-94
<b>Central Urban Zone</b>	1	Lavaca Urban (Commercial)	1	Sep-92
	2	Burton Road (Multi-family)	1	Sep-92
	5	Waller Ck. @ 38th st. (Mixed Use)	1	Sep-92
	6	Waller Ck. @ 23rd st. (Mixed Use)	1	Jun-93
	7	5th st. (Inlet Filters)	1	Jun-93
	15	Waller Ck. (Oil/Grit Separator 1)	1	Sep-93
	16	Waller Ck. (Oil/Grit Separator 2)	1	Sep-93
	26	Garden St. @ Comal (Mixed Use)	1	Apr-94
	18	Wet Pond II / Convention Center	2	Sep-93
	33	Mixed Use / Alpine Pond Flow	1	May-95
	27	East Bouldin Ck.	3	May-94
	34	Far West Blvd. (Detention/Wet Land)	4	May-95
	35	38th st. @ Guadalupe (Wet Pond)	3	May-95
	36	Austin Recreation Center (Oil/Grit Separator)	2	May-95
	37	Alpine Pond Outflow (Extended Detention, site #7)	1	May-95
<b>Northwestern Non-Urban</b>	17	Jollyville Rd. (Filtration Pond)	3	Sep-93
	32	River Place (SF Res. & Golf Course)	2	Sep-94
<b>Southwestern Non-Urban</b>	3	Lost Creek (SF Residential)	1	Sep-92
	10	Barton Ck. (Office Complex)	1	Jun-93
	11	Barton Ck. (Golf Course)	1	Sep-93
	12	Barton Ck. (Undeveloped)	1	Sep-93
	13	Barton Ck. (Undev, Recharge, Cont zone)	1	Sep-93
	14	Bear Ck. (Trib. of Onion Ck., Undev.)	1	Sep-93
	8	Barton Ck. (SF Residential)	2	Jun-93
	9	Barton Ridge Plaza (Sed./Filtration)	4	Jun-93
	23	Mopac @ W. 290 (Hwy. BMP)	6	Apr-94
	24	Barton Ck. (Undeveloped, Recharge)	1	Apr-94
	25	Little Bear Ck. (Undeveloped)	1	Apr-94
<b>Northeastern Non-Urban</b>	4	Metric Blvd. (Industrial)	1	Sep-92
	20	Walnut Ck. (Undeveloped)	1	Sep-93
<b>Southeastern Non-Urban</b>	19	St. Elmo Rd. (Wet Pond)	3	Sep-93
	21	Carson Ck. (Industrial)	1	Sep-93
	22	Williamson Ck. (Golf Course)	1	Apr-94
<b>TOTAL</b>	<b>37</b>		<b>60</b>	

# Austin Area Drainage Zones

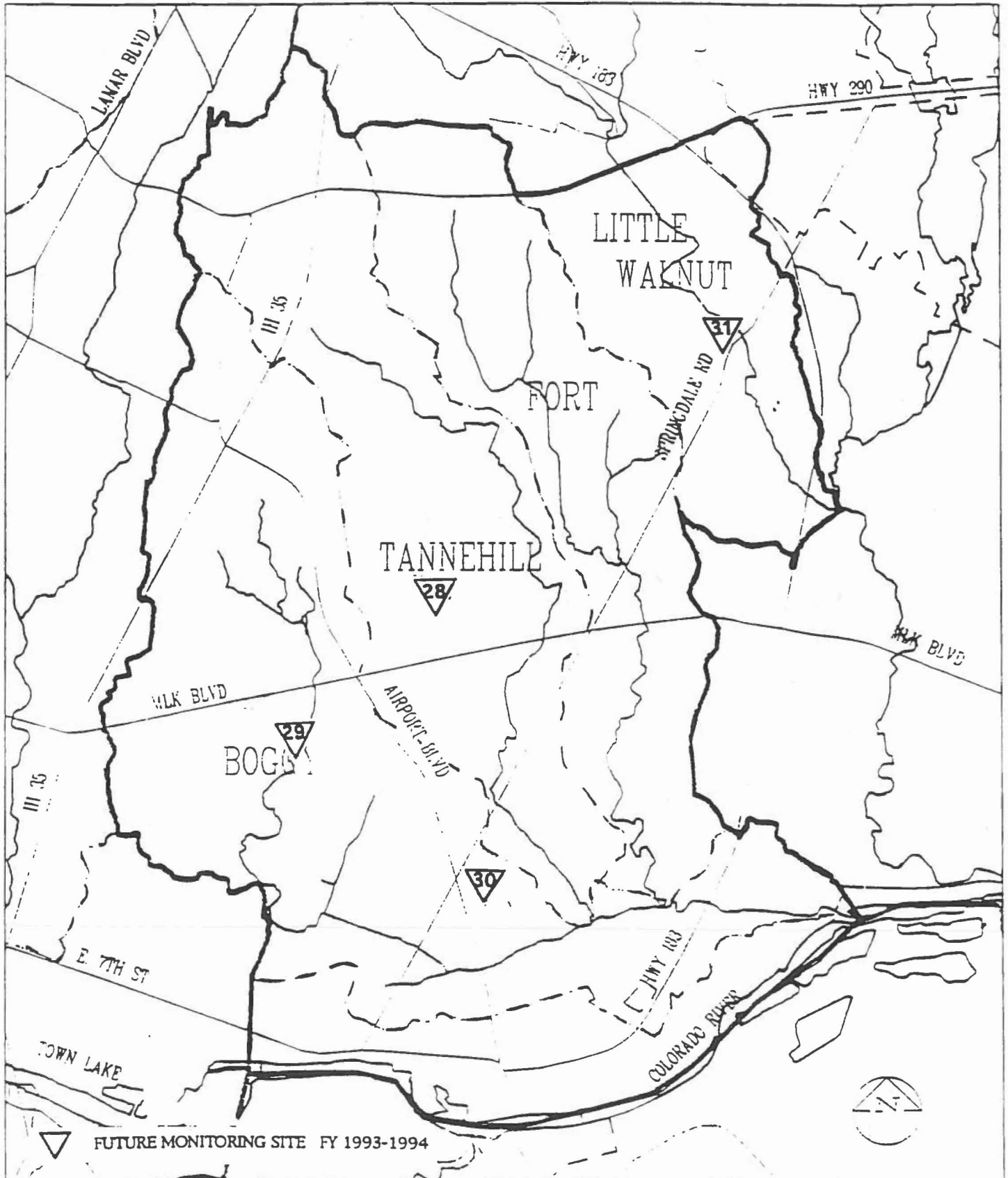




# EASTERN URBAN ZONE

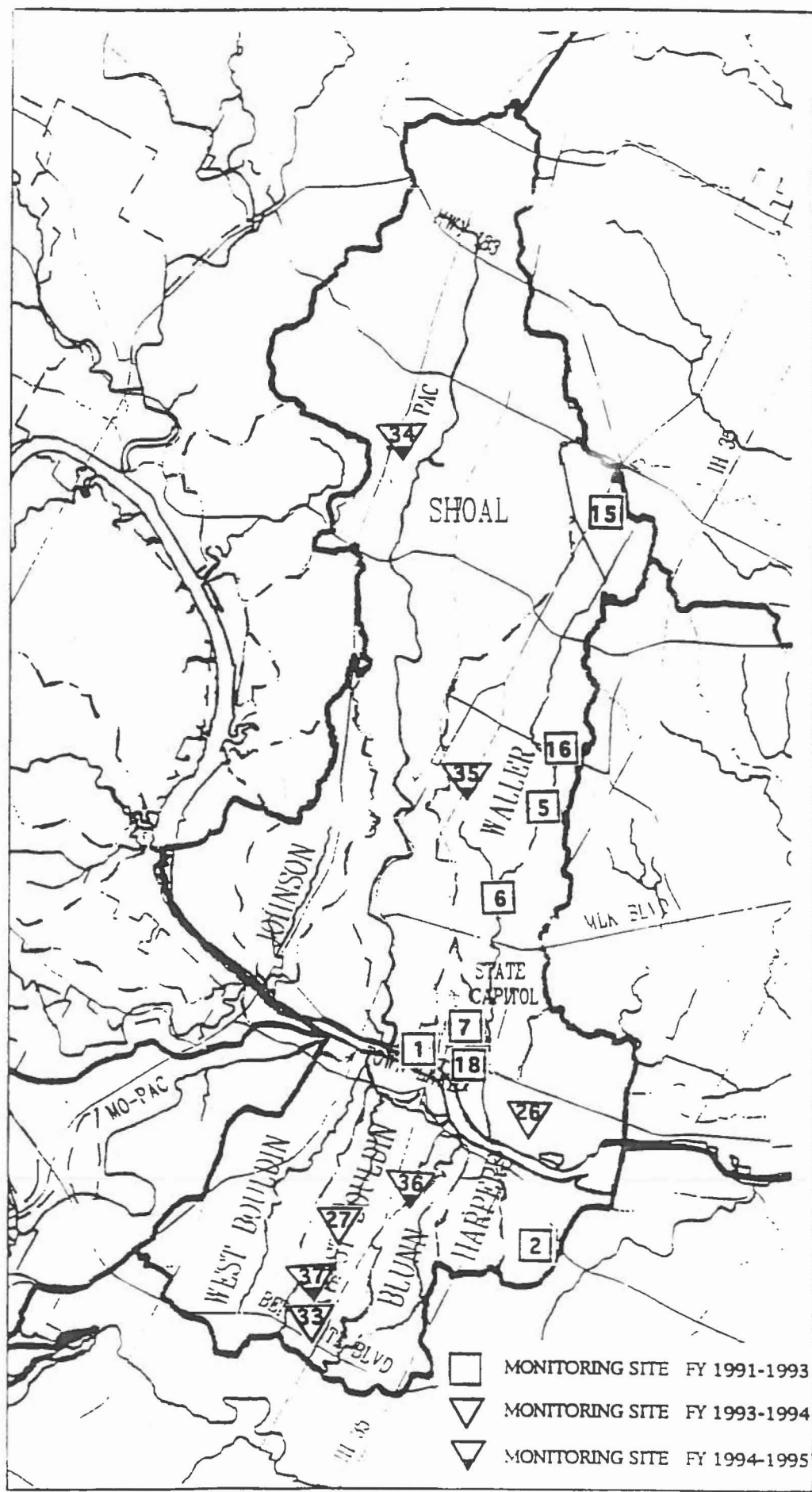
## MONITORING SITES (4)

lib



# CENTRAL URBAN ZONE

## MONITORING SITES



- WATERSHED CONE BOUNDARIES
- MAJOR ARTERIALS
- RIVER & CREEKS
- WATERSHED BOUNDARIES
- CITY LIMIT LINE
- 5 MILE ETI



8000

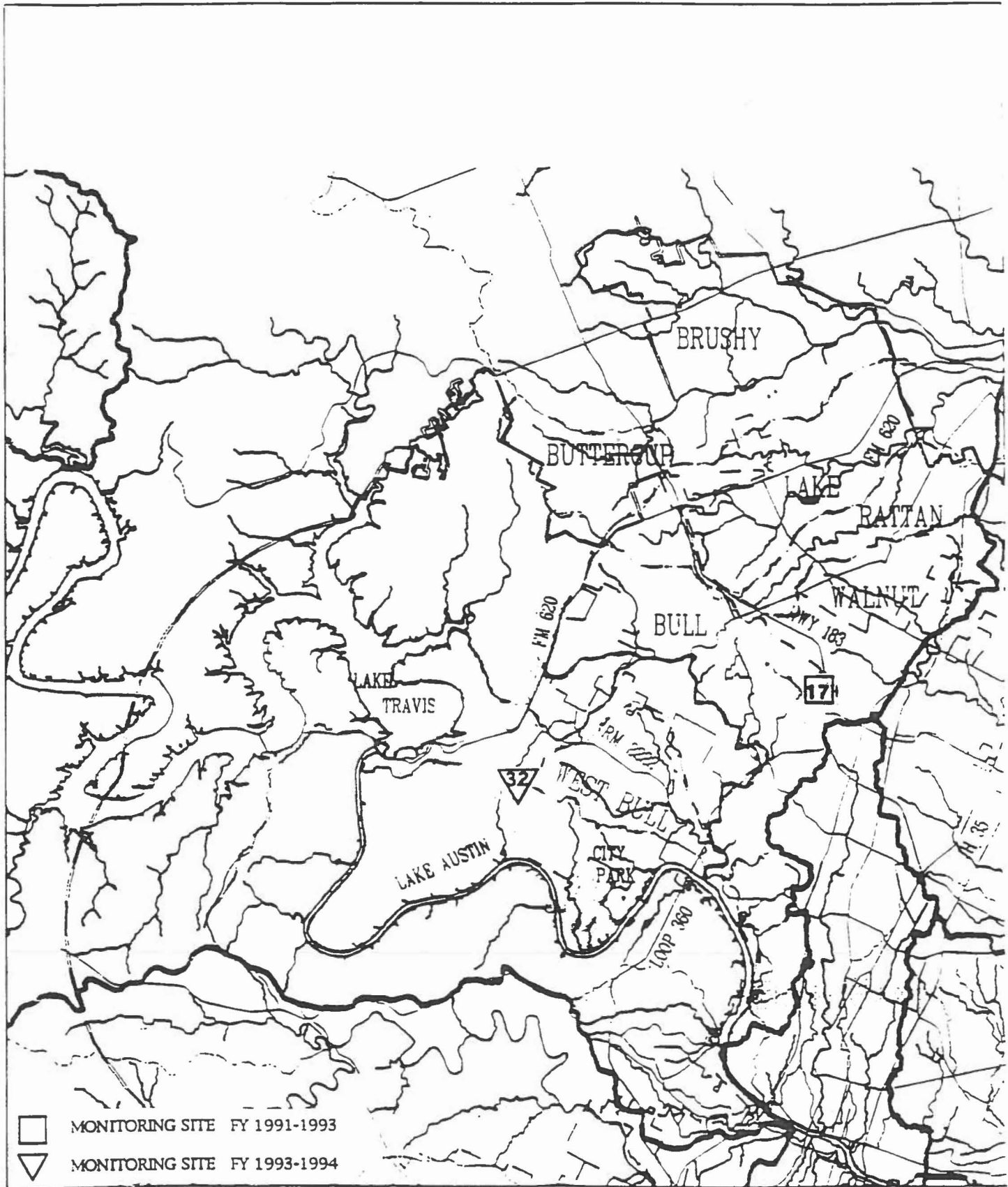
One inch equals 8000 feet



# NORTHWESTERN ZONE

116

## MONITORING SITES (2)



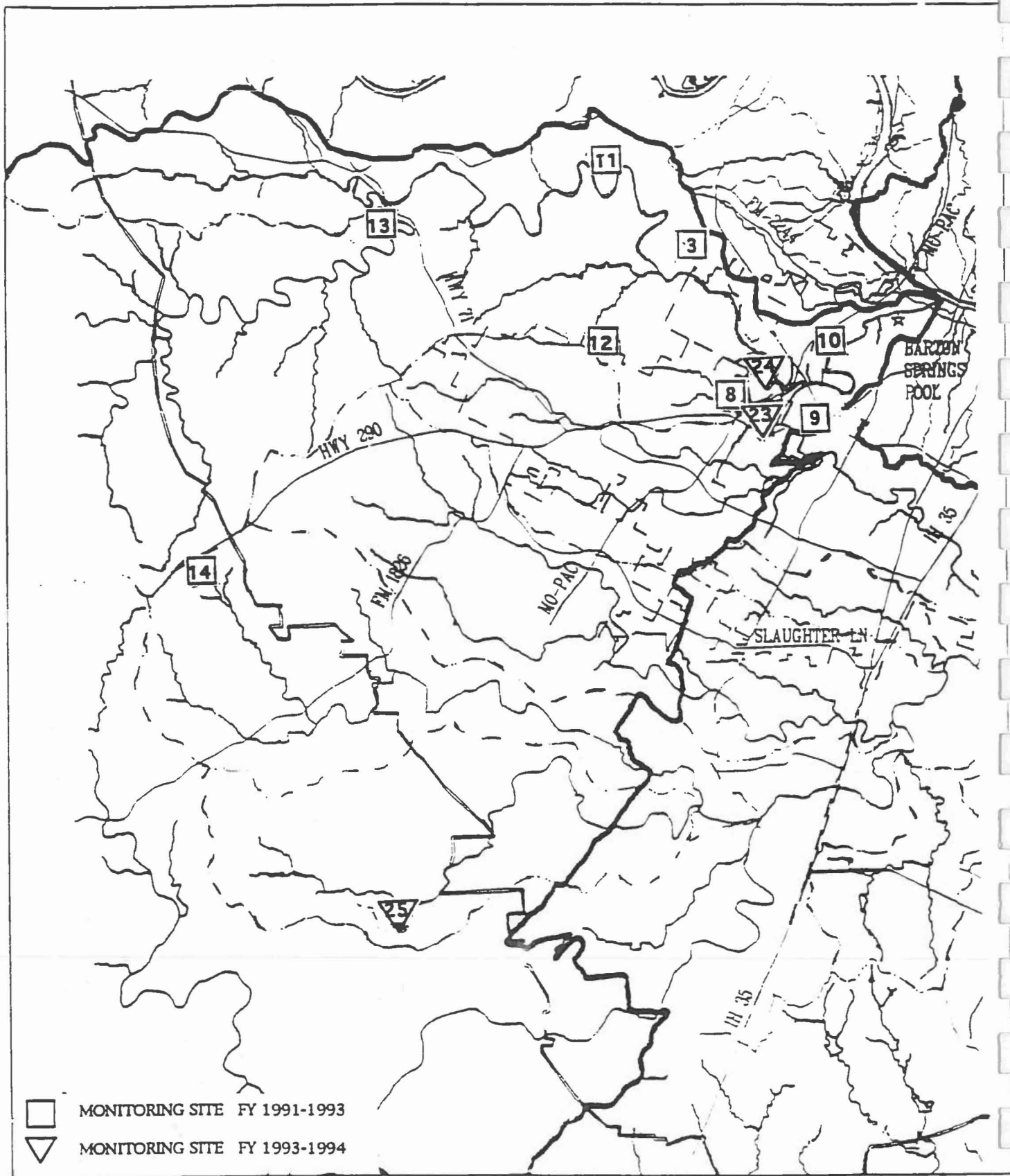
0 3 6  
One inch equals 3 miles



WATERSHED ZONE BOUNDARIES  
MAJOR ARTERIALS  
RIVER & CREEKS  
WATERSHED BOUNDARIES  
CITY LIMIT LINE  
5 MILE E.C.

# SOUTHWESTERN ZONE

## MONITORING SITES (11)



- MONITORING SITE FY 1991-1993
- ▽ MONITORING SITE FY 1993-1994

0 2.5 5  
One inch equals 2.5 miles

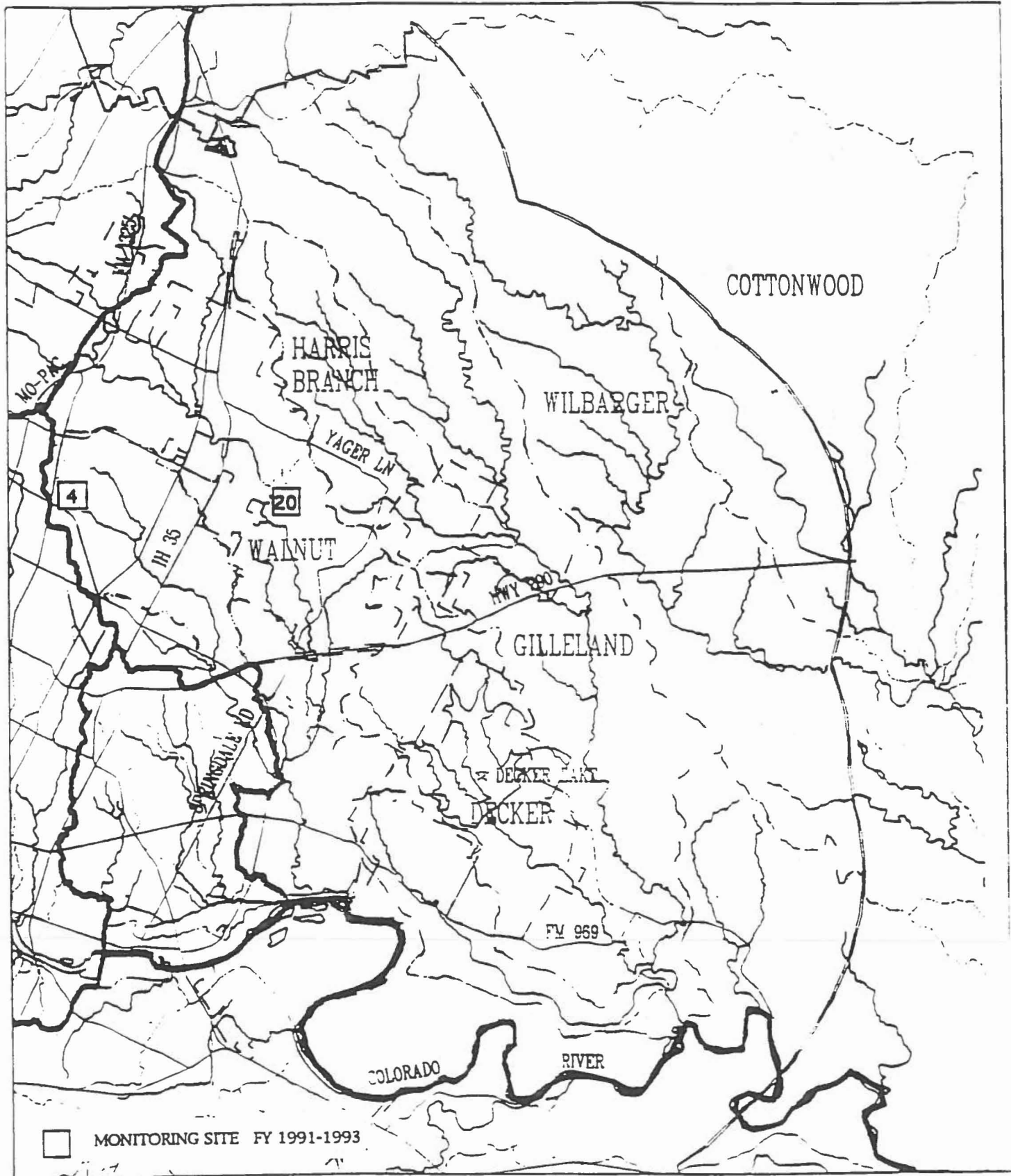


- ~ WATERSHED ZONE BOUNDARIES
- ~ MAJOR ARTERIALS
- ~ RIVER & CREEKS
- ~ WATERSHED BOUNDARY
- ~ CITY LIMIT LINE
- ~ 5 MILE ETC.

# NORTHEASTERN ZONE

11f

## MONITORING SITES (2)

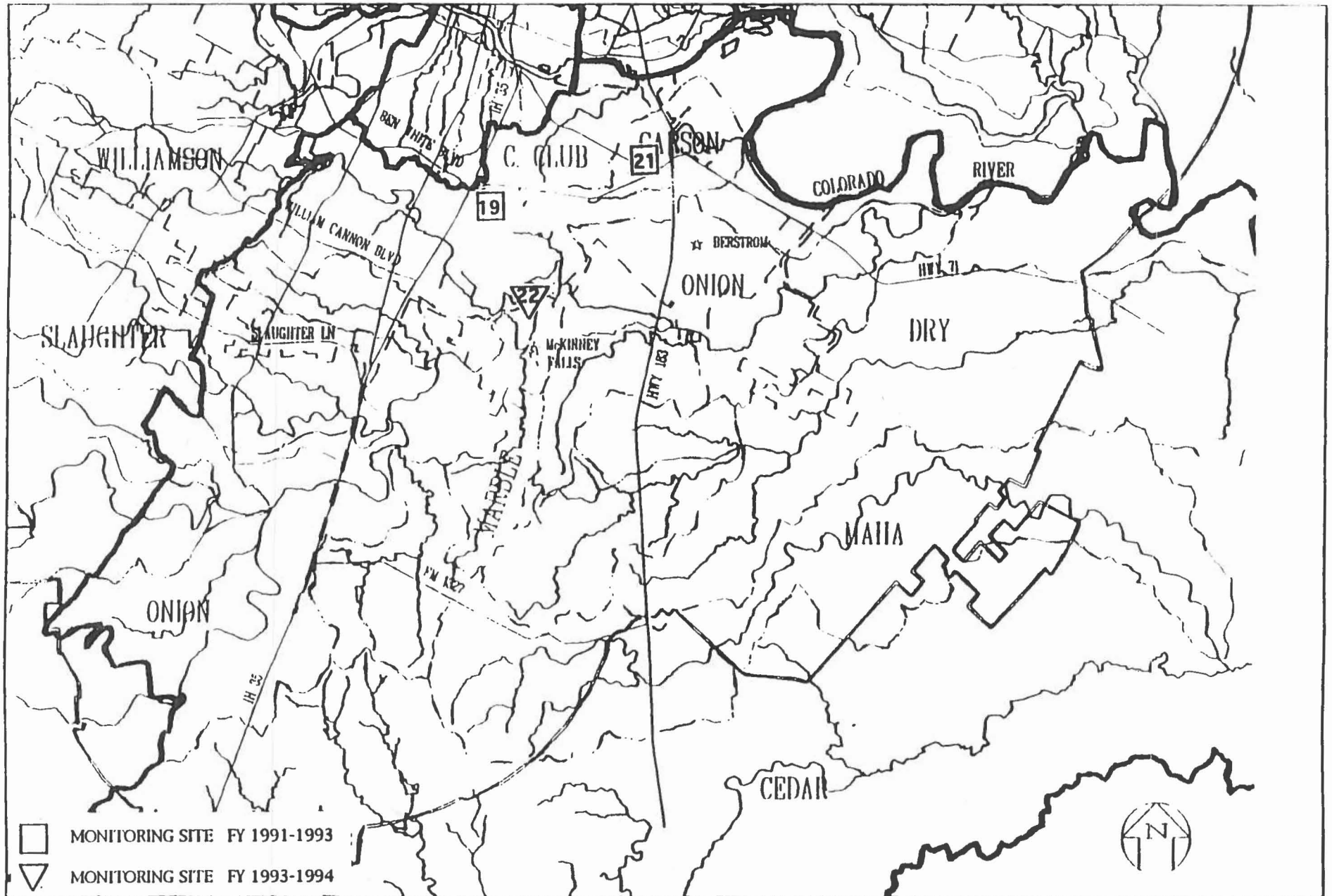


0 2.5  
One inch equals 2.5 miles



- |                           |                      |
|---------------------------|----------------------|
| WATERSHED ZONE BOUNDARIES | WATERSHED BOUNDARIES |
| MAJOR ARTERIALS           | CITY LIMIT LINE      |
| RIVER & CREEKS            | 5 MILE ETX           |

## MONITORING SITES (3)



0 2.75 5.5

One inch equals 2.75 miles

# Performance Measures for SWMP Operations

(See Operation Manual)

## 1. Effectiveness in Data Collection

Data collected from most of the monitoring stations should satisfy the specific objectives of the SWMP. Water quality for nine to eleven storm events will be monitored each year at each station (for 15 conventional pollutant parameters).

## 2. Efficiency

If the City's SWMP team is used, the cost to establish a monitoring station and the annual cost to operate a station should not exceed \$25,000 and \$35,000, respectively. These costs are based on the assumption that a worker is able to establish and operate at least three monitoring stations per year.

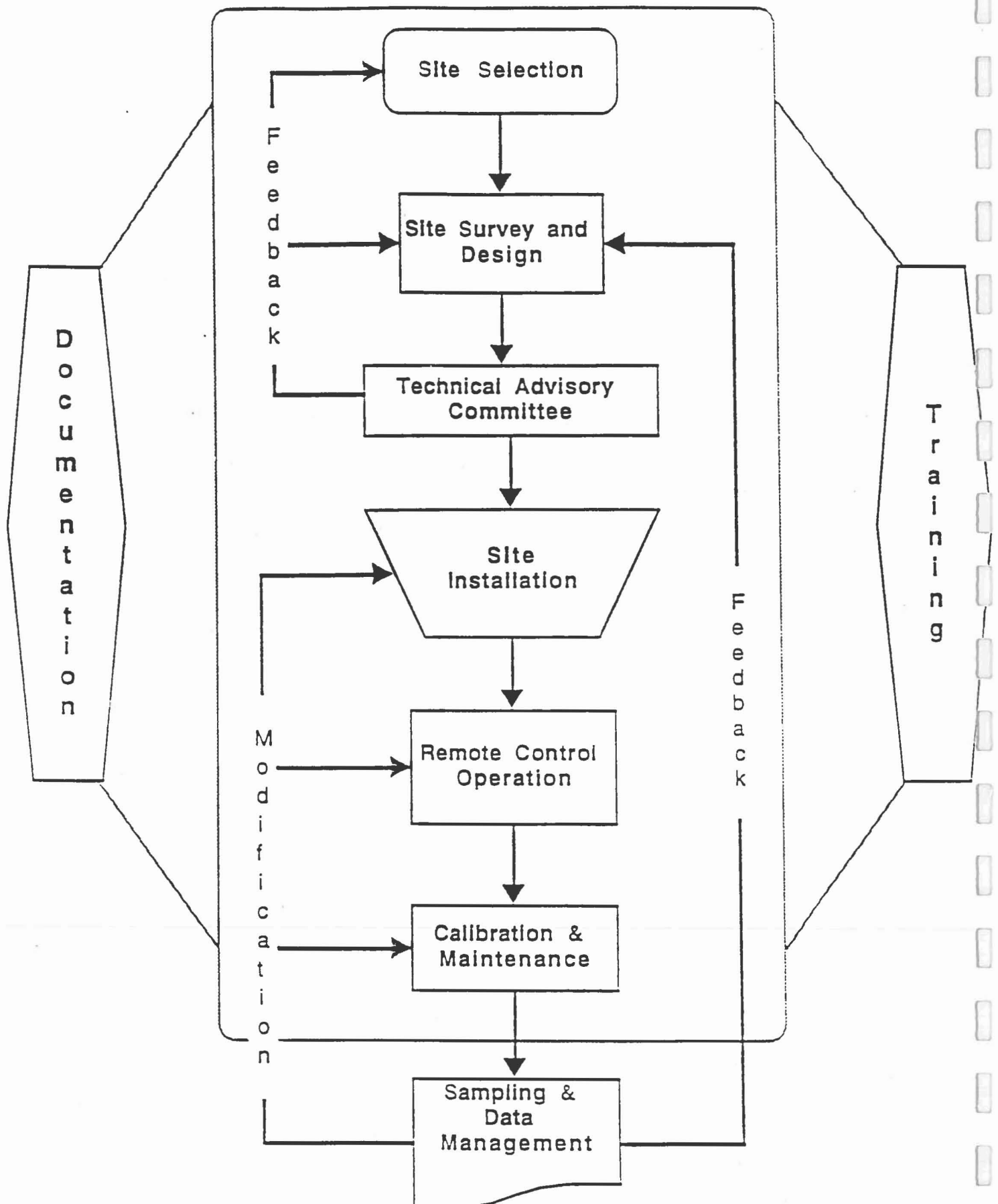
## 3. Quality

The implementation and operation of the program should comply with the standards specified in the following documents: (1) site design, (2) sampling plan, (3) maintenance schedule, and (4) data management procedure.

## 4. Team Work Load

A storm team of two experienced workers should be responsible for eight monitoring stations. The number of storm events monitored per team per year per station is about 12-14. Successful water quality sampling occurs in 80% of storms monitored.

# Stormwater Monitoring Process



Cooperative USGS/COA Monitoring Program  
(USGSP)



## Cooperative COA/USGS Monitoring Program (FY 93-94)

Sub-Programs	No. of Stations/Sites	Sampling Frequency	COA Fund	USGS Fund	Total
In-Stream (Flow & Water Quality) Monitoring	14 Stations	3 Storm Events or 10 Samples Per Year	\$257,730	\$65,660	\$323,390
Lake Austin/Town Lake (Water & Sediment) Survey	8 Sites	3 Water Surveys & 1 Sediment Survey	22,430	22,430	44,860
Groundwater Testing (N. Austin)	10 Wells	1 Testing	5,600	5,600	11,200
Groundwater Testing (S. Austin)	13 Wells	5 Testings	19,680	19,680	39,360
Total			\$305,440	\$113,510	\$418,810

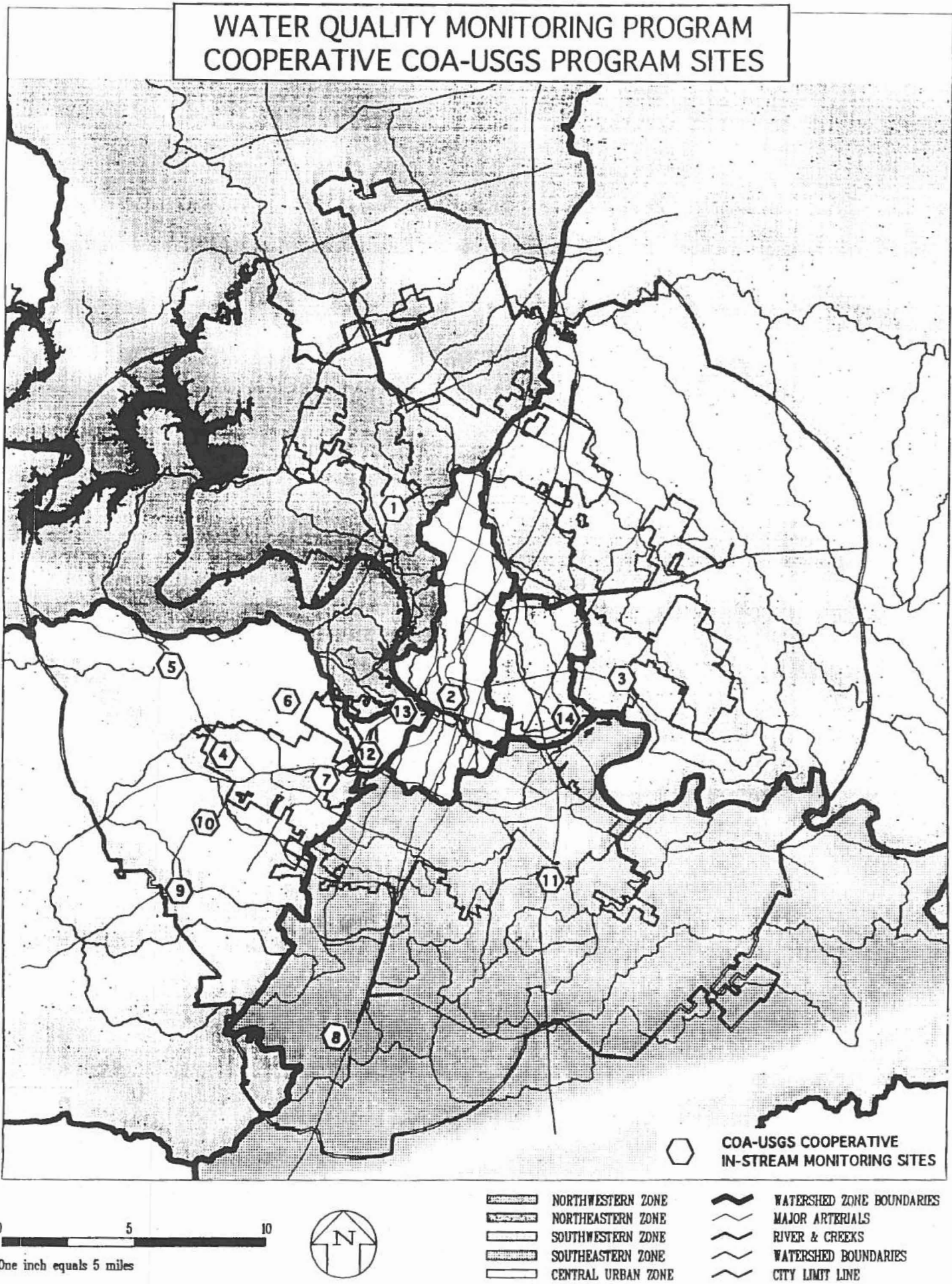


# Map Key

## Cooperative COA/USGS Program Monitoring Sites

- |    |                                   |
|----|-----------------------------------|
| 1  | Bull Creek at Loop 360            |
| 2  | Shoal Creek at 12th Street        |
| 3  | Walnut Creek at Webberville Road  |
| 4  | Williamson Creek at Oak Hill      |
| 5  | Barton Creek at State Highway 71  |
| 6  | Barton Creek at Lost Creek        |
| 7  | Barton Creek at Loop 360          |
| 8  | Onion Creek Near Driftwood, TX    |
| 9  | Bear Creek Below Farm Road 1826   |
| 10 | Slaughter Creek at Farm Road 1826 |
| 11 | Onion Creek at U.S. Highway 183   |
| 12 | Barton Springs                    |
| 13 | Barton Creek Below Barton Springs |
| 14 | Boggy Creek at U.S. Highway 183   |

# Austin Area Drainage Zones



Joint Water Quality Monitoring Program  
(JWQMP)

## A Joint Water Quality Monitoring Program (JWQMP) for the Austin Metropolitan Area

**Goals:** Based on a City Council resolution of December 1990, a joint water quality monitoring program was established in order to coordinate the efforts of various existing monitoring programs in the metropolitan Austin area.

### Program Objectives

1. Coordinate and improve monitoring plans so that there is no duplication in data collection.
2. Minimize the differences in sampling procedures, laboratory analysis standards, and data processing methods.
3. Establish a JWQMP database to encourage the sharing of water quality information.
4. Publish periodic JWQMP reports which summarize water quality data and special events.
5. Evaluate the effect of laboratory analyses on water quality data through a lab comparison study.

# A Joint Water Quality Monitoring Program for the Austin Metropolitan Area

## Products of JWQMP

1. Work Plans for JWQMP:
  - The groundwater work plan summarizes the ongoing and projected monitoring of groundwater quality and aquifer levels.
  - The surface water work plan documents the participating agencies efforts in stormwater runoff monitoring, in-stream monitoring, and lake surveys.
  
2. Laboratory Analysis Comparison Study:
  - This study determines the compatibility of the laboratory analysis results generated from ten different labs .
  - A final report will document the effect of lab analysis on water quality data.
  
3. JWQMP Database and Bulletin Board:
  - The database system stores and transmits water quality data.
  - An ORACLE database design will allow user access to data via telemetric means.

# NPDES Permit Monitoring Program

# Monitoring For NPDES Permit Program

Activities	Schedule
Wet Weather Monitoring	Oct. 1992 - Sep. 1997
Pollutant Loading Documentation	Nov. 1992 and update
- Calculation of annual stormwater discharge pollutant loads for the entire COA area	
Dry Weather Flow Screening Tests	Every year
Industrial Permit Assistance	Frequently
- Provide technical assistance to private and municipal industrial facilities for permit application and monitoring requirements	

# **FY 1993-94 Budget**



## Costs for Stormwater Monitoring Program

( July to September 1995)

### Expenses

FY	Time Period	No. of Stations in Operation	Cumulative No. of Stations in Operation	Installation Costs	Operation Costs	Total Costs
91 - 92	July 1992 - Sep. 1992	5	0	\$110,000	0	\$110,000
92 - 93	Oct. 1992 - Sep. 1993	15	20	280,000	282,600	562,600
93 - 94	Oct. 1993 - Sep. 1994	20	40	360,000	625,980	985,980
94 - 95	Oct. 1994 - Sep. 1995	20	60	360,000	1,005,129	1,365,129
<b>Total</b>		<b>60</b>	<b>120</b>	<b>\$1,110,000</b>	<b>\$1,913,709</b>	<b>\$3,023,709</b>

### Funding

FY	Time Period	Drainage Fund	Grant Fund	Total Funds
91 - 92	July 1992 - Sep. 1992	\$200,000	0	\$200,000
92 - 93	Oct. 1992 - Sep. 1993	780,005	120,000	900,005
93 - 94	Oct. 1993 - Sep. 1994	1,004,204	50,000	1,054,204
94 - 95	Oct. 1994 - Sep. 1995	749,500	120,000	869,500
<b>Total</b>		<b>\$2,733,709</b>	<b>\$290,000</b>	<b>\$3,023,709</b>

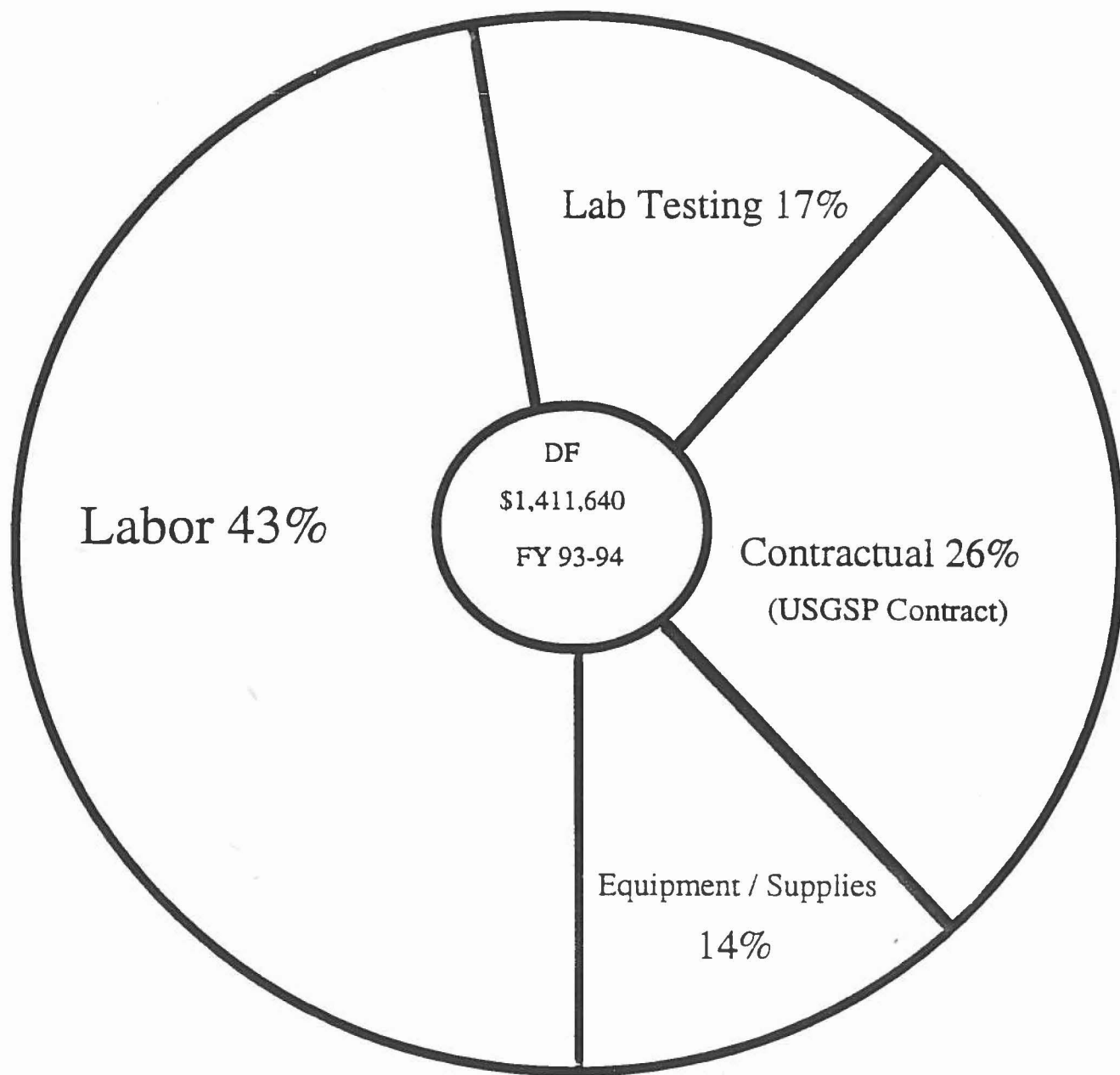
# Budget by Program and Funding Areas

FY 1992-93

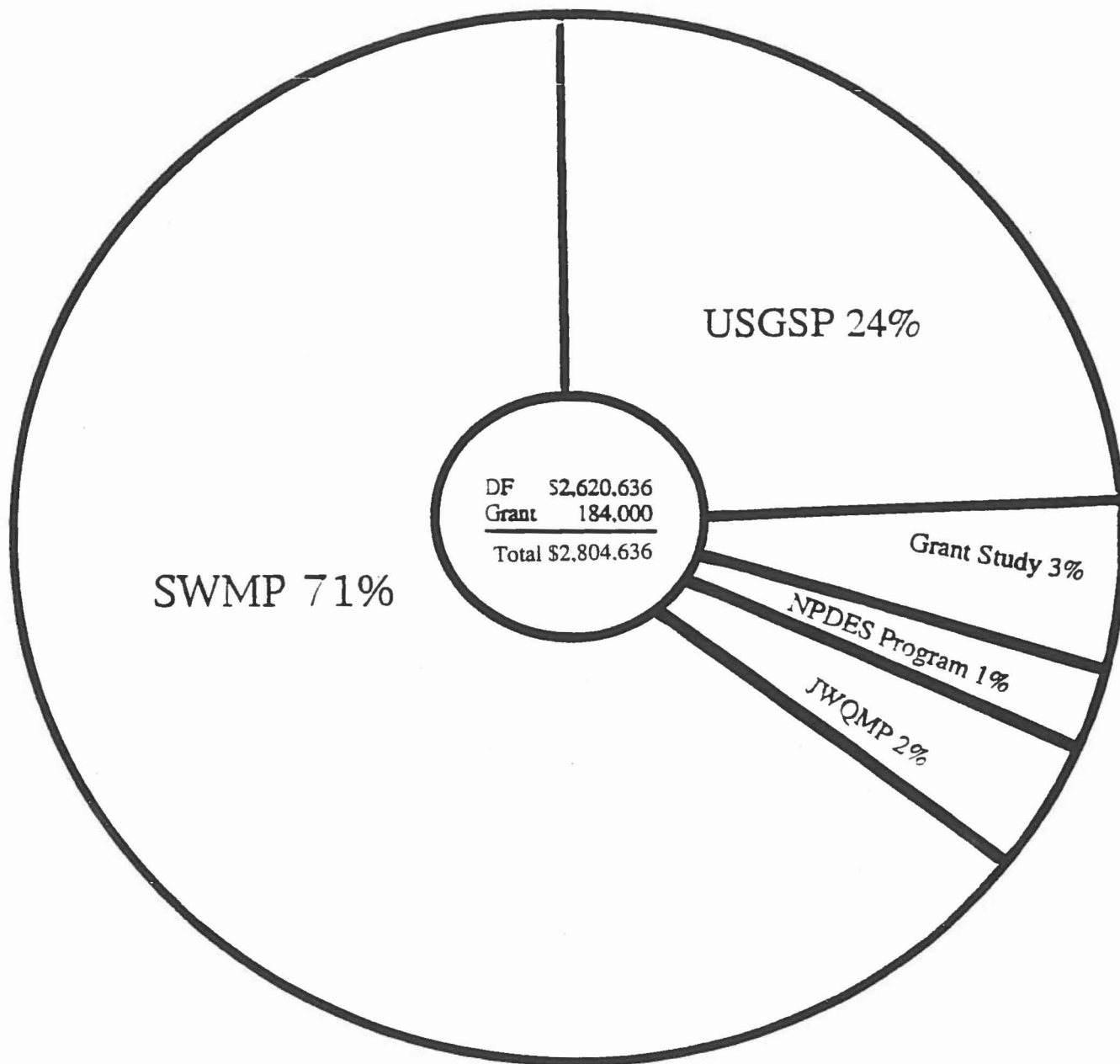
Funding Areas	COA SWMP (30 Stations)	GENERAL PROGRAM			NPDES Coordinaton	Total Budget (\$)	Percentage (%) of Annual Budget
		JWQMP	Grant Match	USGSP (14 Stations)			
DF/Regular	173,738	30,000	30,000	120,187	13,364	367,289	30
DF/UW	244,067	30,000	0	30,000	0	304,067	25
DF/NUW	362,200	0	0	175,440	0	537,640	45
Total Budget (\$)	780,005	60,000	30,000	325,627	13,364	1,208,996	100
Percentage (%) of Annual Budget	65	5	2	27	1	100	

FY 1993-94

	(50 Stations)			(14 Stations)			
DF/Regular	215,549	34,000	30,000	50,663	17,773	347,985	25
DF/UW	391,064	0	0	45,000	0	436,064	31
DF/NUW	397,591	0	0	230,000	0	627,591	44
Total Budget (\$)	1,004,204	34,000	30,000	325,663	17,773	1,411,640	100
Percentage (%) of Annual Budget	71	2	2	24	1	100	



93-94 Budget by Expense Areas



Two Year Budget (FY 92-94) By Program Areas